IN THE SPECIFICATION

Please amend the specification as follows:

Please add the following new sentence immediately after the title:

This application is a continuation of U.S. Patent Application No. 09/988,786 filed on November 20, 2001, which is a continuation of U.S. Patent Application No. 08/827,142, filed March 27, 1997, now U.S. Patent No. 6,404,813.

On page 1, the last paragraph was replaced with the following:

In addition to the[,] ISO MPEG standards, the International Telecommunication Union-Transmission Sector (ITU-T) provides the H.263 standard. The H.263 standard is optimized for coding of Quarter Common Intermediate format (QCIF: 176x144 @ 30 frames/s or lower) vid o at very low bitrates of 20 to 30 [kbitss ad] kbits/s and includes a very low overhead (and a lower quality) version of B-pictures, called the PB-frame mode. Since the ITU-T H.263 standard deals with coding at lower bitrates of simple (e.g., video phone and video conferencing) scenes, the PB-frame mode was basically employed to double the frame-rate when higher temporal resolution was needed. The quality limitation of PB-frames was not considered to be a major impediment since it was the only efficient

On page 3, the top (incomplete) paragraph was replaced with the following:

present invention is thus suitable for B-picture coding of the H.263+ standard. Furthermore, the inventive method can be applied to the bidirectionally predictive coding of either rectangular regions or arbitrary shaped objects/regions in video pictures (so-called B-VOPs) for MPEG-4. The remaining portions of the regions are performed in accordance with the MPEG-1 or H.263 standard. That is, the motion compensated discrete cosine transform ("DCT") coding framework employed in existing standards such as MPEG-1, MPEG-2, and H.263 video standard is used, with appropriate extensions, to provide an efficient, flexible coding scheme.

On page 3, the bottom paragraph was replaced with the following:

In one particular embodiment of the invention, a method is provided for decoding a bit stream repr senting an image that has been encoded. The method includes the steps of: performing an entropy decoding of the bit stream to form a plurality of transform coefficents and a plurality of motion vectors; performing an inverse transformation on the plurality of transform coefficients to form a plurality of error blocks; determining a plurality of predicted blocks based on bidirectional motion estimation that employs the motion vectors, wherein the bidirectional motion estimation includes a direct prediction mode and a second prediction mode; and, adding the plurality of error blocks to the

On page 8, the top paragraph was replaced with the following:

in closed position or both are in closed position. For instance, if macroblock type implies forward prediction, control signal 509 places switch 508 to position 'A', likewise, if macroblock type implies backward prediction, control signal 518 places switch 517 into position 'A'. Further, when macroblock type implies interpolated prediction, both switches 508 and 517 are in respective positions 'A'. Thus appropriate motion vectors (forward, backward or both) needed for the chosen macroblock type are applied via lines 511 and 520 to Prev Picture Store, 513 and the Next Picture Store 522. Prior to coding of a B-picture, the previous decoded picture, if not a B-picture, available at output 535 passes via switch 537 (controlled by signal 538) to line 521 and is temporarily stored in Next Picture Store, 522, and copied right over to Prev Picture Store, 513. The P-picture following B-pictures to be coded, is coded next and is stored in the Next Picture Store, 522, following a similar path via lines 536, switch 537 and line 521. The output of picture stores is then made available on lines 514 and 523 and consists of predicted blocks (or macroblocks), depending on the type of macroblock being coded. Signal 529 controlling switch 528, connects either the forward prediction, line 515, the backward prediction, line 527 [o] of the interpolated prediction, line 527 to line 530 which forms one of the two [input tot] inputs to adder 533. The other input to the adder 533 is on line 532, which carries the decoded block obtained after Inv Scan, Inv Quant and Inv DCT in 531. Also, the interpolated prediction block on line 526 was in fact generated by averaging forward prediction block, line 525 and backward prediction block, line 524. The decoded picture is now available on line 534, at the output of adder 533. As a final note, the Motion Compensated Predictor and Picture Stores are identified by block 540.

On page 10, the entire page was replaced with the following:

Length Decoder, 701, resulting in decoded (run, level) coefficient pairs on line 702, pictype signal on line 703, mbtype signal on line 704 and motion vectors on line 705. The motion vectors (mv) carried on line 705 are either the direct motion vectors (which can be stored next P-picture block/macroblock motion vector and delta motion vector), forward motion vector, backward motion vector, or both forward and backward motion vectors. Switch 706, controlled by signal 707, when in position 'B' allows direct motion vectors to be applied to Scaler and Adder 711 via lines 708 such that the next P-picture block/macroblock motion vector is applied on line 709 and delta correction motion vector on line 710. Alternatively, switch 706 can be placed in the 'A' position connecting to line 713. The output of Scaler and Adder 711 are scaled (implicit forward and backward) motion vectors corrected for scaling errors and form one input to switch 714, the other input to which are normal forward and/or backward motion vectors. The switch 714 is controlled by a control signal 715 and when in position 'A' allows normal forward and/or backward motion vectors to be applied to Prev[.] and Next Picture Stores 722 and 733 via switches 718 and 758, which are controlled by respective signals 719 and [758] 759. The switches 718 and 758 are needed to allow, depending on the macroblock type, the forward motion vector, the backward motion vector, or both motion vectors to pass through to lines 720 and 735. When switch 714 is in position 'B', the implicit forward and backward motion vectors are applied to lines 720 and 735 respectively, also via switches 718 and 758, which are both assumed to now be in position 'A' under the control of signals 719 and 759. Regardless of whether actual forward and backward motion vectors or the implicit ones, the output of 722 and 736 provide prediction blocks on lines 724 and 738 respectively. Switches 725 and 739 under the control of signals 726 and 740 guide the prediction blocks obtained by application of actual forward and backward motion vectors to Picture Stores 722 and 736, to lines 727 and 730. The prediction block on line 730 is also applied to an averager 732, the other input of which is line 729, which carries the same signal as that on line 728. The three predictions, forward, backward and interpolated predictions become available on lines 728, 734 and 733, respectively, which form the input to switch 745, which has yet another input on line 744 and corresponds to the direct prediction generated in averager 743 in response to inputs

On page 18 the second full paragraph was replaced with the following:

MVD_f is the motion vector of a macroblock in B-VOP with respect to temporally previous reference VOP (an I- or a P-VOP). It consists of a variable length codeword for the horizontal component followed by a variable length codeword for the [vertial] vertical component. The variable length codes employed are the same ones as used for MVD and MVD_{2-4}, for P-VOPs in the VM.